



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

separate this group much farther from the vertebrates than was customary when most of the evidence was derived from the comparative anatomy of the adults.

—:O:—

THE USE OF COPPER BY THE DELAWARE INDIANS.

BY CHARLES C. ABBOTT, M.D.

IN the *American Antiquarian* of November, 1884, Mr. Edwin A. Barber, speaking of the Indians of Pennsylvania, remarks:

"The copper age is represented by a few specimens of copper implements which have been discovered in different localities; but these could scarcely have been produced by the Lenni Lenape tribe. They were doubtless obtained from the ancient miners of Lake Superior, or at least were the remains of the industry of the mound-building race, which had found their way into Pennsylvania."

Referring in 1881 to the use of copper, by the New Jersey tribes, I also expressed the opinion that it was "not improbable that all the copper articles found along the Atlantic coast, were brought from western localities."¹ A careful re-survey of many localities where ordinary Indian stone implements occur in abundance; and correspondence with collectors in various portions of New Jersey and Eastern Pennsylvania now convince me that the use of copper, as implements and ornaments, was much more common than I supposed, and that among our Delaware Indians were many coppersmiths.

In the fifteenth annual report of the Peabody Museum of American Archæology, Professor Putnam describes two examples of copper spears, of which he says, while "these spear-heads closely resemble one in the State Historical Society of Wisconsin," yet they differ in the important feature of having smooth edges, while the Wisconsin specimen has a serrated point. These were both made "from a mass of native copper, hammered into shape, as shown by several small laminations which can be distinctly traced."

From the same locality a third example has been found (Fig. 1)

¹ Primitive Industry, p. 413. Salem, Mass., 1881. Geo. A. Bates.

which does not differ in any important feature from the preceding except that it has a smoother surface, and appears to have been ground or polished, after being brought to its present shape, by hammering.

Associated with the three spears was a small celt differing in no respect from scores of such objects found in Pennsylvania and New Jersey. The illustration (Fig. 2) represents the specimen, of actual size, and needs no detailed description of the object. Suffice it to say that the evidence of its having been hammered into shape is as patent as in the examples of spear-heads described by Professor Putnam.

Recently I have had the opportunity of examining a large collection of Indian antiquities, made in the neighborhood of Reading, Penn., and about Bristol in the same State. In this collection are several copper

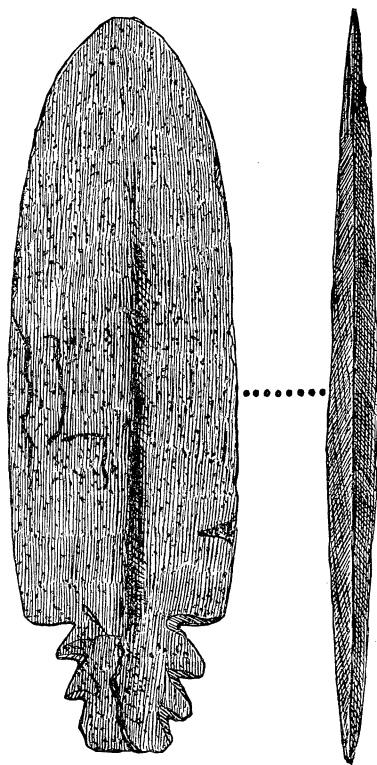


FIG. 1.—Copper spear from Trenton, New Jersey.

objects, all of which are of patterns that have already been found and described from other Atlantic seaboard localities. They are of much interest, however, as showing that more of such objects were in use than has been supposed, and proportionately as the number found here increases, does the probability of their having been brought from a distance decrease; for there is found both in Eastern Pennsylvania and in New Jersey, a very considerable amount of native copper. Indeed one mass weighing over one hundred pounds has been found in Somerset county, New Jersey.

Besides celts and spears there have been found many ornaments of copper, which clearly showed that they were made by the same hammering process; and the character of the metal showed, in many cases, that it was identical with the nodules of

impure native copper found in this region, and not, therefore, metal derived from the Lake Superior region.

When the Delaware and Raritan canal was dug, in 1832, there were found many skeletons of Indians during the course of the excavations. About the wrist bones of many were narrow bands of hammered copper, and some large crescent-shaped ornaments were also found. In one instance a grave was opened which contained a nodule of native copper weighing thirteen ounces.

This information was derived from a gentleman who saw many of the objects mentioned, and who carefully examined the skeletons and grave contents as they were brought to light.

Although the specimens have long since been lost, their identification as copper objects of Indian manufacture was carefully

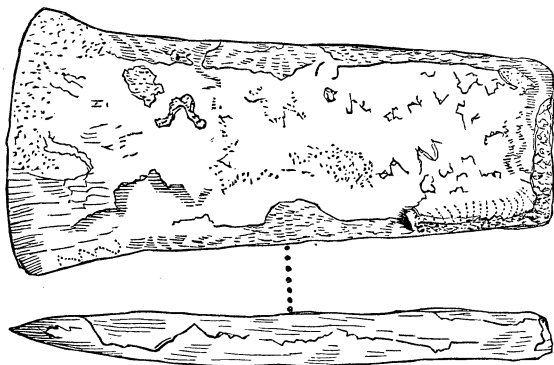


FIG. 2.—Copper celt from Trenton, New Jersey.

made ; and as this is information not readily obtained and has a distinct bearing upon the question of the use of copper among our Indians, it is worthy of being put upon record.

In the many small collections of Indian relics made in different localities that I have examined, I find that one or more celts, spears, arrow-points, bracelets, rude beads or fragments of sheet copper are sure to be found, and a tabulation of these objects, and the information derived from correspondence, gives the following results :

Celts, 11 ; spears, 5 ; arrow-points, 8 ; bracelets, 13 ; beads, 70 ; fragments of metal, 21 ; in all, 128 objects. When we consider how small a chance there is of such objects being found, and what a small proportion of such as are recovered come to the knowledge of archæologists, it is a most reasonable presump-

tion that the Indians had a more familiar knowledge of copper than merely as a material, ready-wrought, which they could only procure through barter with far distant tribes.

There is yet another feature which should be briefly dwelt upon. Among the fragments, so-called, of hammered copper, are several which have every appearance of being unfinished objects. One is, I think, intended for a finger ring, such as those from Ohio, described by Professor Putnam; and another strongly suggests those curious large ear-rings of which that author found so many specimens in recent mound explorations.

It would appear, then, from an examination of the copper objects found in Pennsylvania and New Jersey, that the weight of probability is strongly in favor of their home manufacture; and the similarity of the forms to those taken from areas where mounds occur is another fact in favor of the rapidly growing impression that the builders of these earth-works and the Indians of the coast were essentially one people.

—:O:—

EDITORS' TABLE.

EDITORS: A. S. PACKARD AND E. D. COPE.

— Just and courageous criticism is necessary to the maintenance of excellence in all departments of human activity. An indisposition to submit to it on the one hand and a fear to exercise it on the other, are sure indications of the weakness or decay of an important element of character. Even unfair criticism, bad though it be, is better than none, as it gives indication of life, and is sure to be itself corrected in the end. The attempt to suppress criticism is an unwise proceeding, which will react on its authors. It is better to "make a clean breast," if need be; and if facts do not require it, this also can be made plain. The force of just criticism is not weakened by suppression, but is rather increased in energy; while the expression of it draws the fire and silences the gun of the critic. It is a great error to confound criticism on behalf of the truth with personal hostility, yet it is an error by no means rare. To occupy a perfectly judicial attitude towards our own productions requires some moral elevation, which all men do not attain to. Unjust criticism, indeed, is ground for complaint against the critic.